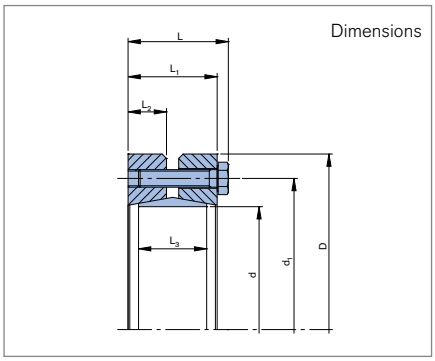
Shrink Discs

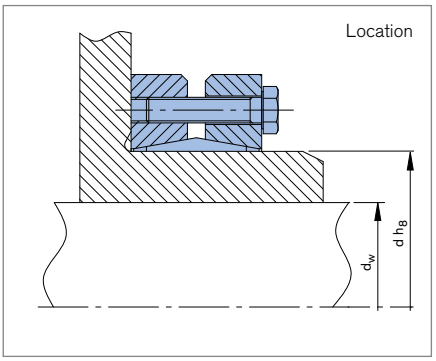
RINGFEDER® RfN 4051

Light Series for Medium Transmission Values, Ideal for Thin-Walled Hubs and Shafts



2-part | **3-part**





Shrink Discs dimensions								Transmissible torques or axial forces				Locking screws ISO 4014/4017 - 10.9			
d x D	d_w	d_1	L	L_1	L_2	L_3	T_A	T	F_{ax}	P	σ_v	n_{Sc}	Thread	Gw	T_{max}
mm	mm		mm				Nm	Nm	kN	N/mm²	N/mm²			kg	Nm
	95							10.550	220		278				13.200
125 x 185	100	158	58	51	22	39	59	12.100	240	191	280	8	M10	5,1	15.125
	105							13.800	260		288				17.250
	110							14.800	265		268				18.500
140 x 220	120	175	58	51	22	39	59	18.640	310	192	281	9	M10	8	23.300
	125							20.500	325		315				25.625
	130							24.000	365		293				30.000
155 x 245	135	192	58	51	22	39	59	26.400	390	212	306	11	M10	10	33.000
	140							29.000	410		334				36.250
	135							32.000	475		298				40.000
165 x 260	140	210	70	62	26	46	100	35.200	500	224	308	10	M12	14	44.000
	145							38.500	530		327				48.125
	145							39.000	535		302				48.750
175 x 275	150	220	70	62	26	46	100	42.400	560	232	313	11	M12	14,7	53.000
	155							46.000	590		334				57.500
	155							46.600	600		307				58.250
185 x 295	160	225	70	62	26	46	100	50.300	625	240	319	12	M12	17,2	62.875
	165							54.000	650		341				67.500
	165							63.000	760		306				78.750
195 x 315	170	237	80	72	31	56	100	67.700	795	233	323	15	M12	23,8	84.625
	175							72.500	825		355				90.625
	175							74.000	850		334				92.500
200 x 330	180	242	80	72	31	56	100	79.500	890	243	368	16	M12	26,8	99.375
	185							84.500	915		440				105.625

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Shrink Discs RINGFEDER® RfN 4051

Shrink Discs dimensions								Transmissible torques or axial forces				Locking screws ISO 4014/4017 - 10.9			
d x D	d_w	d_1	L	L_1	L_2	L_3	T_A	T	F_{ax}	P	σ_v	n_{Sc}	Thread	Gw	T_{max}
mm	mm		mm				Nm	Nm	kN	N/mm²	N/mm²			kg	Nm
	180							82.800	920		277				103.500
220 x 345	190	265	94	84	36	66	250	93.500	980	220	306	10	M16	32	116.875
	200							105.000	1.055		367				131.250
	200							113.000	1.135		304				141.250
240 x 370	210	290	94	84	36	66	250	127.500	1.210	243	330	12	M16	36	159.375
	215							134.500	1.250		356				168.125
	220							149.000	1.350		303				186.250
260 x 395	230	310	102	92	40	72	250	165.000	1.435	240	334	14	M16	48	206.250
	235							173.000	1.475		364				216.250
	230							171.000	1.485		270				213.750
280 x 425	240	333	114	104	46	84	250	189.000	1.570	218	287	16	M16	60	236.250
	250							208.000	1.660		324				260.000
	250							215.000	1.720		279				268.750
300 x 460	260	358	114	104	46	84	250	234.000	1.800	229	303	18	M16	70	292.500
	270							255.000	1.890		342				318.750
	270							260.000	1.940		293				325.000
320 x 495	280	378	116	106	48	84	250	284.000	2.030	239	313	20	M16	84	355.000
	290							306.000	2.125		355				382.500
	290							300.000	2.070		288				375.000
340 x 535	300	402	116	106	48	84	250	324.000	2.160	236	309	21	M16	100	405.000
	305							337.000	2.210		326				421.250
	300							372.000	2.485		292				465.000
350 x 545	305	413	135	122	54	100	490	385.000	2.540	230	304	16	M20	120	481.250
	310							400.000	2.590		320				500.000
	300							360.000	2.400		270				450.000
360 x 555	310	423	135	122	54	100	490	388.000	2.500	223	284	16	M20	125	485.000
	320							415.000	2.590		314				518.750
	320							435.000	2.720		268				543.750
380 x 585	325	442	149	136	60	112	490	451.000	2.780	213	275	18	M20	150	563.750
	330							467.000	2.835		285				583.750
	330							505.000	3.060		285				631.250
390 x 595	340	452	149	136	60	112	490	540.000	3.175	230	304	20	M20	156	675.000
	350							577.000	3.295		337				721.250
	340							550.000	3.235		291				687.500
400 x 615	350	462	149	136	60	112	490	587.000	3.360	236	311	21	M20	164	733.750
	360							626.000	3.480		345				782.500
	350							578.000	3.300		265				722.500
420 x 630	360	485	157	144	64	120	490	617.000	3.425	219	277	22	M20	185	771.250
	370							655.000	3.545		297				818.750
	370							677.000	3.660		274				846.250
440 x 660	380	505	157	144	64	120	490	719.000	3.785	229	287	24	M20	205	898.750
	390							762.000	3.910		309				952.500
	390							840.000	4.320		283				1.050.000
460 x 685	400	527	171	158	71	132	490	890.000	4.460	232	299	28	M20	235	1.112.500
	410							935.000	4.580		328				1.170.000

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Shrink Discs RINGFEDER® RfN 4051

Shrink Discs dimensions								Transmissible torques or axial forces				Locking screws ISO 4014/4017 - 10.9			
d x D	d_w	d_1	L	L_1	L_2	L_3	T_A	T	F_{ax}	P	σ_v	n_{Sc}	Thread	Gw	T_{max}
mm	mm		mm				Nm	Nm	kN	N/mm²	N/mm²			kg	Nm
	410							891.000	4.350		275				1.113.750
480 x 715	420	547	171	158	71	132	490	941.000	4.480	222	290	28	M20	255	1.176.250
	425							966.000	4.548		301				1.207.500
	425							986.000	4.645		275				1.232.500
500 x 750	430	567	171	158	71	132	490	1.013.000	4.712	228	281	30	M20	285	1.266.250
	440							1.066.000	4.845		297				1.332.500

More sizes on request

Explanation

d	= Inner diameter	**L_2**	= Thrust ring width	**P**	= Hub surface pressure
D	= Outer diameter	**L_3**	= Width of ring	**σ_v**	= Equivalent stress in the hub
d_w	= Solid shaft diameter	**L_B**	= Width of the half Shrink Disc	**n_{Sc}**	= Quantity of screws
d_1	= Pitch circle diameter	**T_A**	= Tightening torque of the clamping screws	**D_G**	= Thread
L	= Overall length	**T**	= Transmissible torque at given T_A	**Gw**	= Weight
L_1	= Overall length (without screws)	**F_{ax}**	= Transmissible axial force	**T_{max}**	= Max. transmissible torque

Ordering example

Series	d	D
RfN 4051	420	630

Table Clearance

d_w above	d_w up to	ISO	Max. clearance S mm
6	10		0,011
10	18	H6/j6	0,014
18	30		0,017
30	50	H6/h6	0,032
50	80	H6/g6	0,048
80	120		0,069
120	180		0,079
180	250		0,090
250	315	H7/g6	0,101
315	400		0,111
400	500		0,123
500	630		0,136
630	800		0,154

Clearances considered for the calculation of the function values

Technical information

- Surface finishes: For shaft $R_a \leq 3{,}2$ µm
- Tolerances: For shaft see table
- When using a hollow shaft instead of a solid shaft please contact our Engineering-Team.
- Additional loads, e.g. tension, thrust or bending have to be taken into consideration accordingly
- Function values: The functional characteristics are valid with the screw tightening torque listed in the tables and the following assumed conditions: The locking screws are lubricated using MoS_2 (μ_{tot}= 0,1). The tapered cones are lubricated using MoS_2 (µ = 0,05). The contact surfaces (d_w) are in lightly oiled condition with coefficient of friction µ = 0,12. The hub and shaft materials have a modulus of elasticity of 210,000 N/mm². (Lower values result in increased values for T and Fax with reduced tangential stress.) The maximum clearance S is being fully utilized. The shaft being used is solid, for hollow shaft applications the functional values will change. In cases where the assumed conditions do not apply then contact our Technical Department where we will be happy to assist you with your application.

Further information on
RINGFEDER® RfN 4051
on **www.ringfeder.com**

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All technical details and notes are non-binding and cannot be used as a basis for legal claims. The user is obligated to determine whether the represented products meet his requirements. We reserve the right carry out modifications at any time in the interests of technical progress.

RINGFEDER POWER TRANSMISSION